REMARKS

1. In response to the Office Action mailed December 11, 2006, Applicants respectfully request reconsideration. Claims 1-7, 9-20 and 77-95 were last presented in the application. In the outstanding Office Action, all claims are rejected. In the above Amendments all claims have been cancelled and claims 96-148 have been added. Thus, upon entry of this paper, claims 96-148 will be pending in this application. Of these fifty three claims, three (3) claims (claims 96, 120 and 143) are independent.

2. Based on the above Amendments and following Remarks, Applicants respectfully request that all outstanding objections and rejections be reconsidered, and that they be withdrawn.

Claim Rejections Under 35 U.S.C. 103

3. Claims 1-7, 9-20 and 77-95 are rejected as being unpatentable over various combinations of U.S. Patent No. 6,047,074 to Zoels *et al.,* (hereinafter, "Zoels"), U.S. Patent No. 6,231,604 to von Ilberg (hereinafter, "von Ilberg"), U.S. Patent No. 5,884,260 to Leonhard (hereinafter, "Leonhard"), U.S. Patent No. 5,933,805 to Boss *et al.*, (hereinafter, "Boss"), *Using Speech Recognition,* Prentice Hall, 1996, by Markowitz, (hereinafter, Markowitz), U.S. Patent No. 5,608,803 to Magotra, *et al.,* (hereinafter, Magotra) and alleged well-known prior art.

4. Applicants have cancelled claims 1-7, 9-20 and 77-95 thereby rendering these rejections moot. For the Examiner's edification, Applicants will briefly explain why new claims 96-148 are patentable over the art of record.

New Claim 96

5. Applicants' new claim 96 includes the limitations of Applicant's former claim 1, as well as the limitations of Applicants' former claims 3 and 4. In the Office Action, the Examiner asserts that "Zoels indicates that the programmability of the hearing aid offers possible adaptability by replacement of the program (col. 2, lines 20-25), and as Leonhard teaches... the analysis, recognition, and synthesis programs are software modules (hence replaceable)." (*See*, Office Action, page 6.) The Examiner then equates this teaching to

Applicants' invention of former claims 3 and 4 of a system "wherein said speech analysis and recognition module and said speech synthesis module are adaptive" and to a system "wherein said speech analysis and recognition module and said speech synthesis module are reprogrammable." (*See*, Office Action, page 6.)

6. Without addressing the propriety of these assertions by the Examiner, Applicants respectfully assert that Zoels fails to teach "a ***fully implantable*** signal processing unit ... comprising an adaptive speech analysis and recognition module ... and an adaptive speech synthesis module...each ***re-programmable while said signal processing unit is implanted***" as recited in Applicants' new claim 96. (Emphasis added.)

7. Zoels is directed to a combination of a device "for tinnitus therapy with a digital hearing aid [that] has the further advantage that this device can also be used for persons with normal hearing. (*See*, Zoels, col. 4, lns. 31-33.) In Zoels, "the hearing aid can be employed as a tinnitus masker... or only as hearing aid." (*See*, Zoels, col. 2, lns. 16-19.) Applicants assert that Zoels is directed to a conventional hearing aid device worn on the ear of a user that has the added feature of tinnitus therapy. (*See*, Zoels, col. 2, lines 1-11.) Therefore, because Zoels is directed to a conventional type of hearing aid, the processor of Zoels is inherently not a "fully implantable" processor. There is absolutely no teaching or suggestion in Zoels indicating that there is any need or desire to have a "fully implantable" processor. Similarly, because Zoels does not disclose a "fully implantable signal processing unit," it is impossible for Zoels to disclose "an adaptive speech analysis and recognition module ...and an adaptive speech synthesis module... each ***re-programmable while said signal processing unit is implanted***" as claimed in Applicants' new claim 96. (Emphasis added.)

8. Therefore, for at least the reasons that neither Zoels, nor the other art of record teach a "fully implanted signal processing unit," or "an adaptive speech analysis and recognition module ...and an adaptive speech synthesis module... each re-programmable while said signal processing unit is implanted," Applicants respectfully assert that new claim 96 is patentable over the art of record.

New Claim 120

9. Applicants' new claim 120 includes a modified version of the limitations of Applicants' former claims 1 and 10. However, in the Office Action the Examiner asserts that "Zoels teaches that the signal processing (used in Zoels specifically for tinnitus treatment, and in Zoels in view of Leonhard for analysis and synthesis) can be enabled and disabled (col. 5, lines 19-44)," and that these teachings of Zoels are equivalent to a system "wherein the speech analysis and recognition module and the speech synthesis module are adapted to be turned off to enable processing of audio signals without speech analysis and synthesis" as recited in Applicants' former claim 10.

10. Without addressing the propriety of these assertions by the Examiner, Applicants respectfully assert that neither Zoels nor Leonhard teach or suggest "a signal processing unit ...comprising: a speech analysis and recognition module... a speech synthesis module configured to convert said audio signal into an artificial speech signal...wherein said signal processing unit is further configured to ***select processing of said audio signal without converting said audio signal into said artificial speech signal***" as recited in Applicant's claim 120.

11. In Zoels, "the hearing aid can be employed as a tinnitus masker as well as a tinnitus instrument, or only as a hearing aid." (*See*, Zoels, col. 2, lines 16-18.) The device of Zoels provides the functions of processing and amplifying an input sound and generating a tinnitus masking signal. (*See*, Zoels, col. 5, lines 7-38.) This device can either act as a hearing aid alone, a tinnitus masker alone, or as a combination of a tinnitus masker and hearing aid together. (*See*, Zoels, col. 1, line 64-col. 3, line 24.) In the embodiments where the device of Zoels acts as a combination of a hearing aid and tinnitus masker, Zoels indicates that the processor has the "possibility of automatically ***deactivating the masking signal when only hearing impairment correction is to be undertaken***." (*See*, Zoels, col. 2, lines 36-54; emphasis added.) Because of this explicit teaching in Zoels, Applicants assert that the device of Zoels, when acting as a combination of a hearing aid and tinnitus masker, always performs a preprogrammed processing, and merely has the ability to shut off the tinnitus masker. This mere ability to turn off the tinnitus masking, even with the other art of record at hand, cannot be equated to "a signal processing unit ...comprising: a speech analysis and recognition module... a speech synthesis module configured to

convert said audio signal into an artificial speech signal...wherein said signal processing unit is further configured to ***select processing of said audio signal without converting said audio signal into said artificial speech signal***" as recited in Applicants' claim 120. (Emphasis added.) Not only does Zoels or the other art of record fail to teach or suggest the processing disclosed in claim 120, but Zoels and the other art of record also fail to teach or suggest a device "configured to ***select processing of said audio signal.***"

12. Therefore, for at least the reasons that neither Zoels, nor the other art of record teach, "a signal processing unit ...comprising: a speech analysis and recognition module... a speech synthesis module configured to convert said audio signal into an artificial speech signal...wherein said signal processing unit is further configured to ***select processing of said audio signal without converting said audio signal into said artificial speech signal,***" Applicants respectfully assert that new claim 120 is patentable over the art of record.

New Claim 143

13. Applicants respectfully assert that new claim 143 is patentable over the art of record. The art of record completely fails to teach or suggest "processing said audio signal comprising: detecting an extracting prosodic features from said audio signal with a ***first dynamic module***; and converting said audio signal into an artificial speech signal based on said extracted prosodic features at a ***second dynamic module... and allowing said first and second dynamic modules to optimize said processing***" as recited in Applicants' new claim 143. (Emphasis added.) No only does the art of record fail to teach or suggest processing an audio signal with a "first dynamic module; and ... a second dynamic module," but the art of record also fails to teach or suggest a step of "allowing ***said first and second dynamic modules to optimize said processing.***" (Emphasis added.) Therefore, for at least these reasons, Applicants respectfully assert that Applicants' new claim 143 is patentable over the art of record.

Dependent Claims

14. The dependent claims incorporate all of the subject matter of their respective independent claims and add additional subject matter, which makes them a fortiori and independently patentable over the art of record. Accordingly, Applicants respectfully

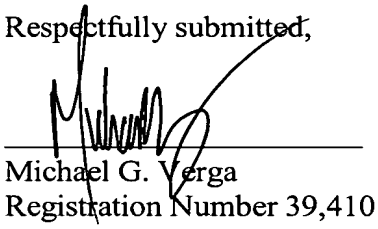
request that the outstanding rejections of the dependent claims be reconsidered and withdrawn.

Conclusion

14. In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

15. Applicants reserve the right to pursue any cancelled claims or other subject matter disclosed in this application in a continuation or divisional application. Thus, cancellations and amendments of above claims, are not to be construed as an admission regarding the patentability of any claims.

Respectfully submitted,



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